UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VII
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

APR 17 2001

Ms. Rebecca Latka
CENWO-PM-AE
U.S. Army Corps of Engineers, Omaha District
215 North 17th Street
Omaha, Nebraska 68102-4978

Dear Ms. Latka:

RE: Review of Draft Environmental Impact Statement (DEIS) 2001, Metropolitan Utilities District's Platte West Water Production Facilities in Douglas and Saunders Counties, Nebraska

In accordance with our responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA) has reviewed the above referenced DEIS. Based upon our review, EPA has rated the DEIS as "EC-2" (Environmental Concerns - Insufficient Information). A copy of EPA's rating system is provided for your reference. This rating has been assigned to the DEIS on the basis of the disclosure within the DEIS and the Applicant's Showing Document of the uncertainties associated with the completed modeling. Based upon this degree of uncertainty, EPA urges the U.S. Army Corps of Engineers to present (in the Final Environmental Impact Statement [FEIS]) a suite of appropriate mitigation measures or operational constraints that are driven by monitoring results and/or actual well field performance observations.

EPA offers the enclosed comments to assist in completion of the FEIS. Questions regarding these comments should be directed to Mr. Stephen K. Smith at (913) 551-7656.

Sincerely,

Leo J. Alderman, Director
Environmental Services Division

Enclosure

cc: Steven Anschutz, U.S. Fish and Wildlife Service

Specific Comments

1. PDEIS, Appendix C, page 1-5, paragraph 3 – The relationship between the 2-mile buffer zone, the cone of depression and the well fields remains unclear. Currently it could be interpreted that the buffer zone is comprised of the well fields and cone of depression. We recommend that a figure be added to the document that illustrates the relationship between the various areas.

2. PDEIS, Appendix C, page 1-6, Table 1-1 – The Wetland Impact Analysis is unclear about the acreages of wetlands potentially affected by the Platte West project. The table indicates that total wetlands and other special aquatic sites within the well field (193.9 acres) plus outside the well field (705.9 acres) would be 899.8 acres. This total conflicts with the total (i.e., 328.8 acres) identified in Section 4.1.1, page 4-1, and in Table 4-1, page 4-1 (i.e., 323.1). Our review of the impacts analysis preceding Section 4 did not provide any clues to explain the significant acreage differences. We recommend that Section 4 address this difference and reference back to Table 1-1 as appropriate.

3. PDEIS, Appendix C, Section 2.2.2, page 2-4 – The wetland impact analysis assumes that "forested (FO type)" wetlands are less susceptible to drawdowns than shallower-rooted "herbaceous wetlands (AB and EM types) ...." We disagree with this assumption. Cowardin et al. (1979) describes forested wetlands as normally possessing "an overstory of trees, ..., and a herbaceous layer." Agreeably, trees in temporarily flooded wetland conditions will likely have deeper roots that can be supported by groundwater. However, the drawdowns expected for the Platte well field sites would be expected to create dry enough conditions to dewater the upper soil profile and cause adverse impacts to the herbaceous plant layer. We would expect that under such conditions, that the hydrophytic plant layer would be shifted to one dominated by nonhydrophytic species. We believe that such a change would significantly affect community functions (e.g., wildlife habitat and species make-up, and water quality improvement capability), and would constitute a change in meeting the vegetation parameter under the Corps' 1987 Wetlands Delineation Manual ('87 Manual). Rather than viewing such drawdowns as causing an alteration under the project proponent's impact scheme, we believe they should be viewed as causing a loss. Based on this information, we recommend that the wetland impact analysis be adjusted for forested wetlands to ensure that adverse impacts will not be underestimated and that appropriate and complete mitigation is afforded this wetland type.

4. PDEIS, Appendix D, page 9, paragraph 2 – The document provides an approximate cost for environmental mitigation with and without an accounting for subsurface irrigation. However, in paragraph 4, page 8, there is no cost projected for any additional mitigation that might be required for altered or lost wetlands that are determined from monitoring in the cone of depression following initiation of the operation. Potential maximum costs could be significant (i.e., 141.6 acres at $23,000 per acre = $3.3 million plus cost of inflation). We recommend that all potential mitigation costs be provided for each of the alternatives.

5. PDEIS, Appendix D, Attachment A, page 2-17, section 2.2.2 and DEIS, page 4-44, paragraph 1 – Monitoring is proposed eventually to occur once every five years for changes to wetlands boundaries. This conflicts with information located in the PDEIS, Appendix D, page 3-3, paragraph 2 that indicates the applicant will monitor wetlands every 2-3 years after the start of project operations.

6. DEIS, page 2-25, paragraph 1 – It is unclear whether the construction costs for the Platte West alternative include expenditures already committed for site purchase and well construction to date. We recommend that such costs, that are reasonably considered part of development of the alternative, be included as part of total cost.

7. DEIS, page 4-41, paragraph 4 – Burns & McDonnell 1998 is cited here but was not found listed in Appendix D, page 4-1 (References) or in the DEIS, page 6-3.

8. DEIS, page 4-75, bullet 8 – As a result of the Platte West alternative, water level declines at Two Rivers SRA up to 3 feet are suggested here. This conflicts with the information (i.e., "up to 5 feet") provided in Table 2-7, page 2-36, at "groundwater."

9. DEIS, page 4-80, paragraph 2 – As identified in our earlier comments (EPA letter dated April 28, 1999, enclosure page 10, comment 4), the DEIS continues to be absent any discussion about why the proposed project and associated mitigation would not meet the Omaha Master Plan minimum recommendations for mitigating for wetland and woodland losses. We recommend that this issue be addressed in the final EIS.

Section 404

The following comments and recommendations are provided as a basis for conditions for the Clean Water Act Section 404 permit associated with the proposed preferred alternative for the Metropolitan Utility District's new water production facilities. Such conditions are intended to ensure avoidance or further minimization of adverse impacts on waters of the United States, including wetlands.

Impacts

10. PDEIS, Appendix C, Section 2.2.1, page 2-2 – EPA continues to be very concerned about the anticipated effects of drawdown on wetlands caused by the proposed well field locations (see EPA letter dated April 28, 1999, enclosure page 5, comment 4 and page 10, comment 3). The literature cited in this section of the PDEIS highlights our very concerns regarding anticipated impacts to wildlife, plant species composition, and overall wetland functions. The literature also further provides support for permit conditions that ensure that monitoring of the well fields and their cone of depression is sufficiently detailed and long-term.

Mitigation

11. We recommend that mitigation for any future adverse impacts to wetlands resulting from the project should be implemented by the next growing season following the results of monitoring to minimize lag time in achieving fully functioning wetlands.

12. We are concerned that the proposed mitigation ratios for forested wetlands are too low. In the " Memorandum of Agreement between EPA and the Department of the Army Concerning the Determination of Mitigation (III, B)," "mitigation should provide, at a minimum, one for one functional replacement." Because there currently is no functional assessment model for forested wetlands in Nebraska, a minimum 1 to 1 acreage replacement provides an allowable surrogate. However, there would be considerable lag time between initiation of forested wetland mitigation and maturity of such systems. Therefore, it would be reasonable and appropriate to increase the ratio for their replacement. This would be in keeping with the national goal of no net loss of wetlands. We recommend that forested wetland losses, including those involving the loss of the hydrophytic herbaceous layer, be mitigated at a ratio of 3 acres replaced for every 1 acre lost. We also recommend that where such wetlands are determined to be altered, they should be mitigated at a ratio of 1.5 acres replaced for every 1 acre altered.

13. PDEIS, Appendix D, page 3, paragraph 2 and 3 – The applicant is proposing a two-tiered mitigation ratio. We presume that the applicant is proposing the lower 1:1 ratio for sites that are determined to be altered under the assumption that such altered wetland sites would continue to provide wetland functions, though at a diminished level. We believe that once a decision is made that dewatering has caused impacts to a wetland that is considered altered, monitoring of the site should continue for the life of the permit. This will provide accountability for measuring any further degradation that might warrant a future determination of wetland loss. We recommend that any subsequent determination of wetland loss at a site earlier determined to be altered, should result in a additional mitigation that represents the difference in mitigation ratios between alteration and loss (e.g., 0.5:1).

14. PDEIS, Appendix D, page 4, paragraph 1 – As indicated earlier (EPA comments, page 11, item 6, dated April 28, 1999), we are concerned about the potential for the loss of La Platte mitigation wetlands resulting from construction of an Interstate-29 and U.S. 75 bridge. We recognize the applicant's plans for replacing any such lost wetlands. However, our concern is centered around the lag time in achieving functional wetlands to replace wetlands lost to well field impacts. We recommend that any Section 404 permit that is authorized for this project should include a contingency condition for the La Platte mitigation site that would require replacement mitigation for any wetland losses or interruptions resulting from construction of an Interstate-29 and U.S. 75 bridge. Such replacement mitigation should reflect an increase in the original mitigation to reflect the delay in obtaining wetland functions.

15. PDEIS, Appendix D, Attachment A, Section 1.3, pages 1-2 to 1-6 – We appreciate that the District considered four sites for potential wetland mitigation. The District identified the La Platte Site as their preferred site based on review of numerous factors. However, we remain concerned about the issue of watershed integrity and sustainability of natural resources on a watershed basis relative to the proposed project mitigation (See EPA comments, page 11, item 5,

dated April 28, 1999.) The Platte West Well Field lies within the Lower Platte Watershed (i.e., HUC = 10200202) and within the Nebraska/Kansas Loess-Drift Hills Major Land Resource Area (MLRA). In contrast, the La Platte site lies within the Big Papillion-Mosquito Watershed (i.e., HUC = 10230006) and within the Deep Loess Hills. We believe that the currently proposed project will result in a significant net loss of wetlands and their functions within the Lower Platte watershed.

As specified in the "Memorandum of Agreement between EPA and the Department of the Army Concerning the Determination of Mitigation (part II, C, 3)," compensatory mitigation "should be undertaken in the same geographic area if practicable (i.e., in close physical proximity and, to the extent possible, the same watershed)." To this end, Tom Taylor in our office contacted Mr. Brad Soncksen, Natural Resources Conservation Service District Conservationist for Saunders County (pers. comm., 3/26/01). Mr. Soncksen indicated that considerable potential exists for wetlands restoration located within the Lower Platte Watershed and Loess-Drift Hills MLRA within Saunders County. Further, in a conversation between Mr. Taylor and Mr. Marlin Petermann, Papio-Missouri River Natural Resources District (pers. comm., 3/26/01), the latter indicated the potential for mitigation sites in Sarpy County along the Platte River north of Interstate-80.

We believe that the applicant should be required to make a more complete demonstration for determining appropriate and practicable mitigation for wetlands adversely impacted (i.e., loss and alteration) by the preferred alternative. Specifically, they should be required to demonstrate why they are unable to mitigate at one or more sites any future alterations and losses, that result from drawdown, within the Lower Platte Watershed and within the Nebraska/Kansas Loess-Drift Hills MLRA. If the demonstration is unsuccessful, we recommend that all wetland alteration and loss, that results from future drawdown, be mitigated in-kind by wetland type based on the Cowardin et al. (1979) classification methodology and located, when practicable, within the same watershed and MLRA.

16. PDEIS, Appendix D, Attachment A, Section 2.1.2 -- Although the project proponents assume that plant species composition in the mitigation wetlands will be diverse, there is no success criterion to ensure such diversity or to prevent the development of monocultural communities (e.g., cattails). We recommend that the 404 permit be conditioned to require diversity equivalent to that of a reference wetland near the La Platte site. This condition also should apply, in principle, to any additional wetland mitigation sites that are established.

17. PDEIS, Appendix D, Attachment A, Section 3.1.1. -- This section identifies criteria for measuring the success of the La Platte mitigation site. Table 4-1 (Appendix C, page 4-1) indicates that forested wetlands would be impacted as an immediate effect of the project. Further, trees are expected to be part of future site conditions (Appendix D, Section 2.1.3., page 2-14, paragraph 1), though no success criterion yet has been proposed for forested mitigation areas. We recommend that the 404 permit be conditioned as follows: In-kind mitigation for impacts to forested wetlands shall be mitigated to achieve woody species survival of at least 75% after three growing seasons.

Monitoring

18. PDEIS, Appendix D, Attachment A, Section 2.2.2, page 2-17 -- Monitoring of wetlands should be frequent enough to allow adequate time to evaluate monitoring results, develop a course of action (e.g., decrease pumpage), and implement any necessary mitigation without incurring any significant delay from the time that impacts are determined. We recommend that complete monitoring at the Platte West well field, including the area within the cone of depression, be conducted once every two years, not every 5 years, for wetlands. Further, within this schedule we believe that monitoring should be adequate enough to consider any seasonal effects of drawdown. Otherwise it remains unclear how monitoring conducted only once either in late spring or early summer (Appendix D, Section 3.3.2, paragraph 2) will be useful for distinguishing between changes in wetland types (e.g., seasonally flooded converted to temporarily flooded) that influence decisions regarding mitigation. Therefore, we recommend that monitoring be conducted both early and late in the growing season during sample years.

19. PDEIS, Appendix D, Attachment A, Section 3.2.2, paragraph 1 -- The applicant is proposing wetland monitoring that involves botanical assessment and a functional analysis. No further details are provided on these monitoring components. It is assumed that these tools, along with groundwater measurements and soils testing, will be used in some manner to determine whether a wetland meets the criteria for "minimal" impact, "altered," or "lost" (Appendix C, page 3-1). The applicant also proposes that the Corps will make the final decision whether and "if impacts are sufficient to warrant further mitigation" (Appendix D, Section 3.1.2, paragraph 3).

The lack of monitoring design details in the DEIS and PDEIS makes assessment of the proposed methodology difficult, inhibits our ability to provide sound recommendations for permit conditions, and leaves decision-making by the Corps regarding potentially large numbers of wetland impacts subject to considerable subjectivity. For example, after the initial monitoring, "soil parameters" would be excluded from the procedure (Appendix D, section 3.2.2, page 3-3, paragraph 2). Because the '87 Manual, which includes consideration of soils, would be used for monitoring wetland boundaries of the wetlands, the PDEIS is unclear why soils will not be monitored in the long-term.

The monitoring methodology must be designed to sufficiently measure changes in wetland conditions so that impacts can be assessed and mitigated if necessary. Monitoring must provide adequate information to distinguish between the different impact categories (i.e., minimal, altered, and lost). Tools for functional analysis, such as the Wetland Evaluation Technique, are not sensitive enough for measuring change resulting from the proposed project (R. Daniel Smith, USACE, Vicksburg, pers. comm., March 29, 2001) or, in the case of the Hydrogeomorphic (HGM) approach, have not been developed yet for this local application.

We also remain unconfident that monitoring focused only on plants and groundwater levels will provide information that can help distinguish between minimally impacted and altered sites. The PDEIS (Appendix C, section 2.2.1, page 2-2, paragraph 2) cites Rochow's (1994) assessment of drawdown on wildlife species supports our earlier concerns (EPA letter dated April 28, 1999, enclosure page 5, comment 4). Bioassessment methods to directly measure

biological integrity of wetlands and quickly screen wetlands for signs of impairment may be available (e.g., Minnesota Pollution and Control Agency Wetland Index of Biological Integrity is based on wetland macroinvertebrates; also see http://www.owow/wetlands/wqual.html#monitoring). Also, the U.S. Department of Interior Habitat Evaluation Procedures or HEP may provide a methodology for assessing changes in wildlife usage of the wetlands.

Based on the above, we recommend that the applicant be required to develop detailed monitoring procedures, and clear and measurable thresholds for changes in wetland type based at least on vegetation and hydrology, and potentially on other information (e.g., significant change in wildlife species diversity, usage, etc.). We further recommend that the impact classification "lost" should be based on the elimination of any one of the three wetland parameters (i.e., soils, hydrology, plants) as provided in the '87 Manual.

20. PDEIS, Appendix D, Attachment A, Section 3.2.2, paragraph 2 – Monitoring is proposed to be established at representative sites within the project area defined as the cone of depression. We are concerned that special aquatic sites, particularly temporarily and seasonally flooded wetlands that are not part of the sample set, could be subject to secondary impacts following drawdown. For example, because such sites could become drier from pumping, they could be further modified due to urban or agricultural development. The project proponent's mitigation plan indicates that they "may include reviewing ... aerial photography" for any special aquatic sites on private property that may be inaccessible during surveys. We recommend that all wetlands be monitored for such land-use changes on an annual basis either using photography or direct field observations.

21. DEIS, page 4-44, paragraph 2 and PDEIS, Appendix D, page 3-3 paragraph 3 – The applicant proposes to monitor wetlands and aquatic beds until adverse changes attributable to the well field are detected "or until it becomes clear the well field is not having an effect." The DEIS (page 4-31, paragraph 4) and PDEIS (Appendix C, page 3-1, paragraph 4) indicate that the "well field cone of depression will develop slowly over approximately a 30-year period as demand from the new facility increases." Based on this information, we believe that the potential for adverse effects to the wetlands would remain and may increase throughout the 30-year project period. Therefore, we recommend that the 404 permit be conditioned to require monitoring of the wetlands and aquatic beds for the entire 30-year period to ensure that they are either being maintained in spite of the pumping activities or adequately replaced by mitigation.

Conclusion

The comments above were provided to assist in preparing revisions to the NEPA documents and to assist the Corps of Engineers in their preparation of any Clean Water Act, Section 404 dredge and fill permit. Due to the extensive permit conditioning for the 404 permit as presented in our comments above, we recommend that the Corps not issue a permit until our comments have been addressed. We look forward to working with the Corps to improve the mitigation and monitoring portions of the project.